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(FILE 'HOME' ENTERED AT 11:12:31 ON 21 SEP 2000)
FILE 'CA' ENTERED AT 11:12:43 ON 21 SEP 2000
L1 13498 S (BORON OR BORATE OR BORIC)(7A)(DETECT? OR DETERMIN? OR MEASUR? OR MONITOR? OR ASSAY? OR TEST? OR ANAL? OR ESTIMAT? OR SENSE OR SENSOR OR SENSING)
L2 497 S L1 AND TITR?
L3 170 S L1 AND(LUBRIC? OR OIL)
L4 6 S L2 AND L3
L5 2 S BODYMAKER
FILE 'REGISTRY' ENTERED AT 11:19:50 ON 21 SEP 2000
L6 1 S CITRIC ACID/CN
SEL NAME L6
FILE 'CA' ENTERED AT 11:20:14 ON 21 SEP 2000
L7 7 S (L6 OR E1-7) AND L2
L8 14 S L4-5,L7

=> d l8 bib,ab 1-14

L8 ANSWER 1 OF 14 CA COPYRIGHT 2000 ACS
AN 132:52003 CA
TI Rapid analysis of stratal fluids using electrodes with semiconductor membranes
AU Burakhta, V. A.; Khasainova, L. I.
CS West Kazakhstan Agricultural University, Ural'sk, 417025, Kazakhstan
SO J. Anal. Chem. (1999), 54(12), 1155-1157
CODEN: JACTE2; ISSN: 1061-9348
PB MAIK Nauka/Interperiodica Publishing
DT Journal
LA English
AB Unified rapid and highly reliable procedures were developed for the***detn*** . of pH, carbonates, bicarbonates, and ***borates*** in stratal waters, and also mercaptans and sulfides in condensates using electrodes with semiconductor membranes made of p-type germanium, indium arsenide, and indium antimonide. It was first revealed that a membrane made of semiconductor indium antimonide is sensitive to pH and sulfur-contg. compds. As a result, indium antimonide was used for prepg.an indicator electrode with high mech. strength and resistance to corrosive media and non-aq. solvents. The working surface of this electrode can be renewed by simply removing the upper layer.
RE.CNT 10
RE
(1) Burakhta, V; Cand Sci (Techn) Dissertation Moscow: Moscow Inst Fine Chem
Tekhnol 1991
(2) Karaulova, E; Chemistry of Oil Sulfides 1970
(3) Karaulova, E; Khimiya sul'fidov nefti 1970
(4) Kiyanskii, V; Byull Izobret 1990, 20
(6) Kiyanskii, V; Zh Anal Khim 1987, V42(6), P1138 CA
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 14 CA COPYRIGHT 2000 ACS
AN 130:204478 CA
TI Analytical method and apparatus therefor

IN Bevan, Christopher David; Hill, Alan Peter; Reynolds, Derek Peter
PA Glaxo Group Limited, UK
SO PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9913328	A1	19990318	WO 1998-GB2711	19980909
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9890834	A1	19990329	AU 1998-90834	19980909
EP 1012599	A1	20000628	EP 1998-942856	19980909
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,IE, SI, LT, LV, FI, RO				

PRAI GB 1997-19142 19970909
WO 1998-GB2711 19980909
AB The present invention relates to an improved anal. method and app. therefor, in particular to a method and app. for continuous ***titrn*** . in which at least one parameter of at least one compd. in a test mixt.may be monitored as the compn. of the mixt. is continuously varied.
RE.CNT 3
RE
(1) Nippon Parkerizing; JP 01078164 A 1989
(2) Sarasep; EP 0345782 A 1989
(3) Yarnitzky, C; INSTRUMENTATION SCIENCE & TECHNOLOGY 1995, V23(2), P91 CA

L8 ANSWER 3 OF 14 CA COPYRIGHT 2000 ACS
AN 111:42480 CA
TI Quantitative method for ***determination*** of ***boron*** in ***lubricants***
AU Dagaeva, I. G.; Popovich, T. D.; Boguslavets, D. B.; Torchun, Z. M.;
Dmitruk, M. O.; Maksimova, A. I.
CS VNIIPKneftekhim, Kiev, USSR
SO Neftepererab. Neftekhim. (Kiev) (1988), 34, 34-6
CODEN: NEFNBY; ISSN: 0548-1406
DT Journal
LA Russian
AB B is detd. in Mannich-base ***lubricating*** ***oil*** additives or cutting fluids by potentiometric ***titrn*** . with 0.1

N KOH in iso-PrOH. The sample is dissolved in C6H6-iso-PrOH or MePh-iso-PrOH. The relative deviation of this method is <10%, and the results obtained are in line with those obtained by a spectrochem. method.

L8 ANSWER 4 OF 14 CA COPYRIGHT 2000 ACS
AN 109:42096 CA
TI Corrosion of cemented tungsten carbide punch material immersed in several commercial drawn and ironed canmaking lubricants
AU Cox, Edward P.
CS Mater. Anal., Inc., Dallas, TX, 75238, USA
SO Lubr. Eng. (1988), 44(4), 353-60
CODEN: LUENAG; ISSN: 0024-7154
DT Journal
LA English
AB Lab. corrosion tests were conducted on cemented W carbide coupons, similar in compn. to ***bodymaker*** punches, in heated and stirred solns. contg. com. synthetic lubricants, and one sol. oil. Corrosion rate and Co extn. data revealed low corrosion rates in all synthetic lubricants regardless of whether the lubricant solns. were prepd. with distd. Water or tap water. Biocide addns. caused no significant change in corrosion behavior.

L8 ANSWER 5 OF 14 CA COPYRIGHT 2000 ACS
AN 102:178301 CA
TI Coulometric thermometric acid-base and redox ***titrations***
AU Zsigrai, Istvan J.; Meszaros Szecsenyi, Katalin; Dimitrijevic, Ljiljana M.
CS Fac. Sci., Univ. Novi Sad, Novi Sad, YU-21000, Yugoslavia
SO Glas. Hem. Drus. Beograd (1984), 49(10), 627-31
CODEN: GHDBAX; ISSN: 0017-0941
DT Journal
LA English
AB Thermometric acid-base and redox ***titrns*** . with coulometric generation of ***titrant*** are described. The change in temp. during the ***titrn*** . is followed by a differential technique with 2 thermistors connected in opposition in a Wheatstone bridge. Micromol amts. of sulfuric, citric and boric acids, triethanolamine, pyridine, Sb(III), ascorbic acid, and Fe(II) were detd. The relative error of detn. was <1.3%.

L8 ANSWER 6 OF 14 CA COPYRIGHT 2000 ACS
AN 95:54102 CA
TI Automatic numerical evaluation of potentiometric ***titrations***
AU Bender, John V.; Kujawa, Edward P.
CS Brinkmann Instrum. Inc., Westbury, NY, 11590, USA
SO Can. Res. (1981), 14(3), 29-32
CODEN: CAREDM; ISSN: 0319-1974
DT Journal
LA English
AB The microprocessor-controlled E 636 ***Titroprocessor*** performs potentiometric ***titrn*** . with improved accuracy over other instruments by controlling the ***titrn*** . performance as well as evaluating endpoints from the data gathered. The E 636 can be programmed to change the vol. of ***titrant*** added to achieve a const. Change of measured potential per addn. Control parameters are

also available to adjust time between ***titrant*** addns., stop the ***titrn*** .upon meeting 1 of several preset conditions, or ignore endpoints below a set threshold or outside a set potential range. An expanded version of the E 635 can carry out 2 different ***titrns*** . on the same or sep. samples and can output data directly to a host computer. Examples given include ***titrn*** . of ***citric*** ***acid*** , HCl + boric acid, acid in used ***oil*** , and carboxyl end groups in synthetic fibers.

L8 ANSWER 7 OF 14 CA COPYRIGHT 2000 ACS
AN 93:125089 CA
TI ***Determination*** of ***boron*** oxide in silicates by potentiometry
AU Fodor, Mrs. Peter
CS Szilikatipari Kozp. Kut. Tervezo Intez., Budapest, Hung.
SO Epitoanyag (1980), 32(5), 198-200
CODEN: EPITAA; ISSN: 0013-970X
DT Journal
LA Hungarian
AB The sample was fused with Na2CO3 at 1000.degree., the melt was dissolved in H2SO4, and interfering cations (Al, Fe, Ti, Ca, Mg, etc.) were pptd. with ***citric*** ***acid*** . The soln. was filtered, and the filtrate was neutralized to pH 6.9 by using a pH meter. Mannitol soln. was added and the soln. was ***titrated*** while stirring continuously with 0.1M NaOH until pH 6.9 was restored. B2O3 was calcd. in the usual way from. the vol. of NaOH. The method was tested on international NBS stds. The std. deviation was .+-.1.3%, for low B2O3 contents it was somewhat higher. The anal. time is 40 min.

L8 ANSWER 8 OF 14 CA COPYRIGHT 2000 ACS
AN 86:173917 CA
TI ***Titrimetric*** ***determination*** of ***boron*** in succinimide additives
AU Sosnina, N. P.; Barsukova, N. V.
CS USSR
SO Tr., Vses. Nauchno-Issled. Inst. Pererab. Nefti (1976), 14, 243-5
CODEN: TIPNA7
DT Journal
LA Russian
AB The method consisting of oxidn. of succinimide additives (contg. .ltoreq.1% B) for ***lubricating*** ***oils*** and following ***titrn*** . with NaOH soln. was developed. Oxidn. was done in a calorimetric bomb. To increase the dissocn. const. of H3BO3, complex glycerolboric acid or mannitoboric acid were formed by adding the appropriate alcs. The pH indicator was phenolphthalein. Detn. Required 30-40 min, compared to 3 days needed by the conventional method.

L8 ANSWER 10 OF 14 CA COPYRIGHT 2000 ACS
AN 78:75834 CA
TI Methods for controlling triethanolaminobentonite and boric acid ointment, prepared from a triethanolaminobentonite-based water-soluble emulsion
AU Lekhan, A. S.; Solonskaya, N. T.; Eremina, Z. I.; Salo, D. P.
CS Khark. Farm. Inst., Kharkov, USSR
SO Farm. Zh. (Kiev) (1972), 27(6), 61-5

CODEN: FRZKAP
DT Journal
LA Ukrainian
AB Triethanolaminobentonite(TEAB) consists of 88-90% bentonite (I) and 10-12% triethanolamine (II). II was extd. from an ointment with 0.1N HCl and detected with 5% CoCl2 in the presence of aq. NH3 or with CuSO4 to give a purple-violet and blue color, resp. I was detected by igniting a sample moistened with a Co(NO3)2 soln. or by dissolving it in HCl, and detecting leached Al with 8-hydroxyqinoline at pH 5. II was also detd. quant. By the Kjeldahl method with an error .+-.1.82%. A new TEAB-based H2O-sol. emulsion was also developed contg. peach ***oil*** 35, TEAB 8, and water 57%. H3BO3 was detd. in the TEAB-based ointment by extn. with hot EtOH and ***titrn*** . of a glycerol soln. of the ext. with NaOH visually using phenolphthalein or potentiometrically with a glass-AgCl electrode. The error was 2.91 and 2.94%, resp.

L8 ANSWER 11 OF 14 CA COPYRIGHT 2000 ACS
AN 75:132837 CA
TI Deep water analytics and geochemistry. 6
AU Reti, Sandor
CS Hung.
SO Banyasz. Kohasz. Lapok, Koolaj Foldgaz (1971), 4(1), 23-6
CODEN: KOFOB6
DT Journal
LA Hungarian
AB For the ***detn***. of ***borates*** in deep water 2 methods were developed, consisting of the same steps but using different reagents: (1) adjust to a definite pH value, (2) add an activator reagent of the same pH, (3) ***titrate*** with carbonate-free 0.02N Ba(OH)2 soln. to the same pH, using the potentiometric end-point control, (5) repeat steps 2 and 3 until there is no further change of pH upon addn. of the activator. Invert sugar (s) or mannitol (m) can be used as activators. In methods A activator is 8s,4m and 4s, 2m wt. %, resp. When using method B, the amt. of fixed H3BO3(i.e., present as borate at the initial pH) must be taken into consideration. This amt. depends on the ionic strength, .mu., of the sample. Values of the corresponding multiplication factor vary between 1.05 and 1.11 for .mu. values of 0.0-0.5, resp.; in normal cases an av. factor of 1.09 can be used. Accuracy of the methods: As = 98.9 .+-. 0.6; Am = 98.4 .+-. 0.7; Bs = 99.8 .+-. 1.0 and Bm = 100.1 .+-. 0.4 (theorethical value = 100). The BO2- content in various ***oil*** field deep waters varies considerably, ranging from 17 to 617 mg HBO2-/1.; higher contents usually occur in the deeper layers. The HBO2- content can be used for layer identification and for differentiation between deep waters and industrial sewage. The B/Cl ratio in Hungarian deep waters is .apprx.10-100 times higher than in ordinary sea water.

L8 ANSWER 12 OF 14 CA COPYRIGHT 2000 ACS
AN 71:27165 CA
TI Potentiometric ***determination*** of ***boron*** in nonstandard brasses and bronzes
AU Dolgopolova, G. M.
CS USSR
SO Tr., Gos. Nauch.-Issled. Proekt. Inst. Splavov Obrab. Tsvet. Metal.
(1968), No. 27, 256-8

CODEN: TSOTAM
DT Journal
LA Russian
AB Dissolve 1 g. (for 0.1-0.2% B) or 0.5 g. (for 0.5% B) of alloy in a mixt. of 20 ml. 1:1 HCl and 3 ml. HNO3 by heating under reflux. Neutralize the soln. with 5% NaOH to the beginning of hydroxide pptn. and pass it through a column of KU-2 ion-exchanger, H+ form. Wash the column with 250 ml. H2O, and neutralize the soln. and washings with 10% NaOH to methyl orange. If the alloy contains Al, add 10 ml. 5% ***citric*** ***acid*** .Boil under reflux to remove CO2, cool, and adjust to pH 6.9 with 0.02N NaOH. Add 30 ml. invert sugar and ***titrate*** with 0.02N NaOH until pH becomes 6.9 again. ***Titrate*** a blank treated in the same way. The mean relative error is 4% for 0.1% B, 2.5% for 0.5% B.

L8 ANSWER 13 OF 14 CA COPYRIGHT 2000 ACS
AN 69:70596 CA
TI Conditions for the existence of boron citrate complexes in solution
AU Karazhanov, N. A.; Kalacheva, V. G.
CS USSR
SO Izv. Akad. Nauk Kaz. SSR, Ser. Khim. (1968), 18(3), 1-6
CODEN: IKAKAK
DT Journal
LA Russian
AB The cond., viscosity, and d. of isomolar solns. of citric and ***boric*** acids were ***measured*** at total concns. 0.001-0.6M and at 25 and 60.degree.. The deviation of the cond. from additivity and the additive cond. of ***citric*** ***acid*** multiplied by the sq. root of the viscosity were plotted vs. the mole % H3BO3. In all cases, the curves had a max. at the ratio of boric to ***citric*** ***acids*** of 1/2. The stability of the B-citrate complex decreases with increasing temp. At a total acid concn. of 0.1M, the calcd. pH of the isomolar solns. differed only insignificantly from the exptl. values. At 0.6M, however, it was 0.3-0.7 pH units lower. Thus, the B-citrate complex is a stronger acid than the single components. The 0.6M solns. Of H3BO3, ***citric*** ***acid*** , and their 1:2 mixt. Were ***titrated*** conducto-metrically with NaOH. In a soln. of 1:2 mixt., a complex exists at pH 1.0-2.9, which has considerably higher acid strength than ***citric*** ***acid*** . The complex is decompd. at pH > 2.9, where no max. is exhibited by the plot of the cond. vs. mole % H3BO3.

L8 ANSWER 14 OF 14 CA COPYRIGHT 2000 ACS
AN 69:64316 CA
TI Potentiometric ***determination*** of ***boron*** in an oxidizing medium
AU Negina, V. R.; Kozyreva, E. A.; Balakshina, A. V.; Chikisheva, L. S.
CS USSR
SO Zavod. Lab. (1968), 34(3), 278-9
CODEN: ZVDLAU
DT Journal
LA Russian
AB A 200-mg. sample of Ti boride contg. impurities of Ti, Fe, Al, Mg, Zr, Cu, Pb, Sn, Zn, Cr, Ni, Co, W, and (or) Si was dissolved in a mixt. of 2 ml. H2SO4, 2 g. K2S2O7, and a few drops of HNO3 with heating in a

quartz flask, then dild. to 200 or 250 ml. To an aliquot contg. 5-10 mg. B were added 10 ml. of 5% ***citric*** ***acid*** , then 6N NaOH to neutralization at pH 6.9, 50 ml. of satd. mannitol soln., and H2O to 150 ml. The mannitol-H3BO3 was ***titrated*** potentiometrically with 0.1N NaOH to pH 6.9 (glass and Ag/AgCl electrodes). The relative error in detn. of 5 mg. B in the presence of 35 mg. of the above admixts. Was .ltoreq.1%. If only Ti was present, 1-5 ml. of 30% H2O2 was added to 150 ml. of the sample soln. as a complexing agent. In this case the relative error for 5 mg. B in the presence of 15 mg. Ti was 0.5-1%, and for 0.2 mg. B when Ti/B = 3 it was .+-.3%; however, it rose markedly when Ti/B > 3.

=> log y
STN INTERNATIONAL LOGOFF AT 11:24:22 ON 21 SEP 2000